

**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

IN RE RIDDELL CONCUSSION  
REDUCTION LITIGATION

Civil Action No. 13-7585 (JBS)(JS)

***CONFIDENTIAL – FILED UNDER  
SEAL***

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**PLAINTIFFS' BRIEF IN OPPOSITION TO MOTION TO  
EXCLUDE OPINION TESTIMONY OF DR. BARRY D. JORDAN**

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**PRELIMINARY STATEMENT**

Defendants seek to strike the expert testimony of Dr. Barry Jordan, a noted neurologist who has extensively studied sports-related concussions. Notably, Defendants do not challenge that fact that he has sufficient skill and training to qualify as an expert under Fed. R. Evid. 702.

Rather, Defendants seek to exclude Dr. Jordan under *Daubert* by contending that his opinions do not “fit” the issues in this case, and by arguing that his opinions are not reliable because he does not satisfy certain factors relating to reliability that have nothing to do with the opinions that he has rendered here. The reality is that Defendants seek to exclude Dr. Jordan because his opinions are inconvenient, not because they are not appropriately based in science. Thus, for the reasons set forth below, Defendants’ motion to strike Dr. Jordan should be denied.

## **LEGAL ARGUMENT**

### **I. DEFENDANTS' MOTION TO STRIKE DR. JORDAN'S EXPERT TESTIMONY SHOULD BE DENIED**

Defendants seek to strike the expert opinions of Dr. Barry Jordan because, Defendants' argue, his opinions are not scientifically sound and do not fit the issues in the case. The reality is that Dr. Jordan's expert testimony is inconvenient because it is his opinion that the football helmets at issue do not provide any better concussion protection than any other, which is the central issue in the case. For the reasons set forth below, Defendants' motion should be denied.

#### **a) Applicable Standards**

Federal Rule of Evidence 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Federal Rule of Evidence 703 provides:

An expert may base an opinion or data in the case that the expert has been made aware of or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admissible. But if the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect.

The general gatekeeping obligation of a trial judge "applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge." *Kumho Tire Co, Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999). The objective of that obligation "is to ensure the reliability and relevancy of expert testimony; it is to make certain that an

expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152; *see also In re Paoli R.R. Yard PCB Litigation*, 35 F.3d 717, 747 (3rd Cir. 1994) (noting that a “district judge must make a factual finding as to what data experts find reliable.”).

“Rule 702 embodies a trilogy of restrictions on expert testimony: qualification, reliability and fit.” *Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003). “The party offering the expert must prove each of these requirements by a preponderance of the evidence.” *Mahmood v. Narcico*, 549 Fed. Appx. 99, 102 (3d Cir. 2013) (citing *In re TMI Litigation*, 193 F.3d 613, 663 (3d Cir. 1999)). “[Plaintiffs] do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of the evidence that their opinions are reliable.” *Paoli*, 35 F.3d at 744.

First, regarding qualification, the trial court must “determine whether the expert has adequate ‘specialized knowledge’ such that he is qualified to testify as an expert.” *Floorgraphics, Inc. v. News America Marketing In-Store Services, Inc.*, 546 F. Supp. 2d 155, 165 (D.N.J. 2008). “An expert may be generally qualified but may lack qualifications to testify outside his area of expertise.” *Calhoun v. Yamaha Motors, Inc.*, 350 F.3d 316, 322 (3d Cir. 2003).

Second, regarding reliability, “the expert’s opinion must be based on the methods and procedures of science rather than on subjective belief or unsupported speculation; the expert must have good grounds for his or her belief.” *Calhoun*, 350 F.3d at 321. For reliability, courts may consider the following factors: (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review or publication; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the techniques operation; (5) whether the

method is generally accepted; (6) the relationship between the technique to methods which have been established to be reliable; (7) the testifying expert witness's qualifications; and (8) the non-judicial uses to which the method has been utilized. *Paoli*, 35 F.3d at 742, n.8 (summarizing *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 591-95 (1993) and *U.S. v. Downing*, 753 F.2d 1224, 1238-39 (3d Cir. 1985). The reliability analysis “applies to all aspects of an expert’s testimony: the methodology, the facts underlying the expert’s opinion, [and] the link between the facts and the conclusion.” *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999).

All of that being said, all of the *Paoli/Daubert* factors are not necessarily applicable to each and every expert opinion. “The inquiry envisioned by Rule 702 is, we emphasize, a flexible one. The focus, of course, must be solely on principles and methodology, not on the conclusions they generate.” *Daubert*, 509 U.S. at 594-5.

[*Daubert*] made clear that its list of factors was meant to be helpful, not definitive. Indeed, those factors do not all necessarily apply even in every instance in which the reliability of scientific testimony is challenged. It might not be surprising in a particular case, for example, that a claim made by a scientific witness has never been the subject of peer review, for the particular application at issue may never previously have interested any scientist. Nor, on the other hand, does the presence of *Daubert*’s general acceptance factor help show that an expert’s testimony is reliable where the discipline itself lacks reliability, as, for example, do theories grounded in any so-called generally accepted principles of astrology or necromancy.

*Kumho Tire*, 526 U.S. at 151. The reliability requirement was not intended to be used as a tool for the court to exclude all questionably reliable evidence. *Voilas v. General Motors*, 74 F. Supp. 2d 452, 460 (D.N.J. 1999) (quoting *Paoli*, 35 F.3d at 742).

In addition, there must also be “fit” between the expert’s testimony and the issues in the case, *i.e.*, that “the expert’s testimony must be relevant for the purposes of the case and must assist the trier of fact.” *Calhoun*, 350 F.3d at 321. The testimony must have a valid scientific connection



to the relevant facts and issues. *McGarrigle v. Mercury Marine*, 838 F. Supp. 2d 282, 293 (D.N.J. 2011) (quoting *In re TMI Litigation*, 193 F.3d at 670)). The issue fit is directly related to the “particular disputed issues in the case.” *Paoli*, 35 F.3d at 743. The opinions’ “fit” depends upon whether it is “helpful”, *i.e.*, “whether the expert’s technique or principle [is] sufficiently reliable that it will aid the jury in reaching accurate results.” *Id.* at 744.

**b) Dr. Jordan Is Qualified**

While Defendants concede that Dr. Jordan is qualified as an expert under Rule 701, Plaintiffs nonetheless respectfully direct the Court’s attention to Dr. Jordan’s qualifications. Dr. Jordan’s qualifications cannot be glossed over, as Defendants do, because the qualifications of the proposed expert are among the factors to be considered in determining the reliability of his opinions, in addition to the threshold question of whether the person is actually an expert.

Dr. Jordan is, among other things, Director of the Sports Concussion Program at Burke Rehabilitation Hospital in White Plains. He has held a number of faculty positions, and served on a variety of sports-related advisory boards. Dr. Jordan has consistently been voted among the top physicians in the metropolitan New York City area. He has authored or co-authored literally hundreds of articles, papers, letters and presentations relating to sports-related head injuries. If anyone in the world has expertise with respect to concussions and how they are caused, it would be Dr. Jordan. *See* CV, attached as Exhibit A to the Declaration of James E. Cecchi (“Cecchi Decl.”).

**c) Dr. Jordan’s Opinions Are Based Upon Science**

Defendants argue that Dr. Jordan’s opinions are not scientific because his methodology is not testable, has not been peer reviewed and is generally unreliable. In fact, his opinions are based upon his scientific and technical knowledge as a neurologist specializing in sports-related brain

injuries. At his deposition, Dr. Jordan explained the basis for his opinions, which are based in science. Notably, nowhere do Defendants challenge the scientific basis of Dr. Jordan's opinions.

Cutting through the smokescreen that Defendants have raised, Dr. Jordan testified from his knowledge, training and experience as a neurologist who has studied sports-related concussions as to how physically and mechanically concussions occur and how and whether football helmets could protect a player against concussions. Concussions are caused by movements of the head and helmets cannot prevent movements of the head. (Cecchi Decl. Ex. B, Jordan Dep., 44:4-13; 124:22 to 125:5.) More specifically, concussions are caused by linear and rotational acceleration of the head, with the rotational aspect being the more important component. (Cecchi Decl. Ex. B, Jordan Dep., 93:20 to 94:19) Thus, as a basic proposition, no football helmet was superior to any other football helmet in reducing the incidence of concussions because the acceleration that causes a concussion will occur regardless of what type of helmet the player is wearing. (Cecchi Decl. Ex. B, Jordan Dep., 47:11-18; 120:13 to 121:14; 124:10 to 125:5; 242:13-15.)

Dr. Jordan's opinions are based upon science, not based upon subjective belief or unsupported speculation. As is explained above, his opinions are based upon the biomechanical mechanism by which concussions are caused, not, as Defendants posit, based upon his review of some amorphous set of medical literature.

Dr. Jordan explained that concussions are caused by acceleration of the head, particularly rotational acceleration, and that explanation is based upon his training and experience as a neurologist. Nowhere do Defendants challenge the basic scientific underpinnings for Dr. Jordan's opinions as to how concussions are caused. His opinion that no helmet is better than any other in reducing the incidence of concussions is based upon the fact that the acceleration that will cause (or

not cause) a concussion is the same regardless of what type of helmet is being worn. This is a valid conclusion based upon Dr. Jordan's specialized knowledge and uncontested expertise.

Defendants' arguments directed toward inapplicable *Paoli* factors are a school of red herrings. Defendants complain that Dr. Jordan's methods and hypotheses are not testable because, they claim, Dr. Jordan's methodology was supposedly a review of an undefined pool of medical literature. (Def. Brief at 14-16.) That is not what Dr. Jordan did. Rather, his methodology was to draw upon his learning and experience as a neurologist specializing in sports-related injuries in forming his opinion that no helmet is better than another in reducing the incidence of concussions. His review of the medical literature, which went into that learning and experience, was largely to determine whether there was any medical literature that would change his opinion that was based upon the biomechanics involved in creating a concussion, that no helmet was better than another. His ranking system as to the strength of the various studies simply went to whether there was any information or finding in the study sufficiently strong to change his opinion. There were no studies that changed his opinion that no helmet can provide better concussion protection than another.

Whether Dr. Jordan consulted materials outside the class period is irrelevant to the validity of Dr. Jordan's opinions. The issue here is whether Riddell's helmets reduce the incidence of concussions more than others. Either they are or they aren't more effective, and the answer to this question has nothing to do with whether some scientific paper on the subject was produced before, during or after the class period. In *Johns v. Bayer Corp.*, 2013 WL 1498965, at \*17 (S.D. Cal. April 10, 2013), the court excluded from consideration certain studies that occurred after the class period because they were not relevant to the issue of whether the claims about the product in issue were substantiated, not whether they were true. Lack of substantiation is not the issue here; truth or falsity is the issue. Truth or falsity is not dependent upon the state of knowledge at a particular point

in time. A claim that a football helmet could reduce the incidence of concussions by keeping the bodily humors in balance might be “substantiated” if based upon 12<sup>th</sup> Century medical knowledge, but that would not make the claim true.

Defendants’ argument that Dr. Jordan’s methodology has not been subject to peer review (Def. Brief at 16-17) is directed at the methodology Defendants ascribe to Dr. Jordan, not the methodology Dr. Jordan actually used.<sup>1</sup> The fact that the UPMC Study<sup>2</sup> was peer reviewed has nothing to do with whether Dr. Jordan’s testimony is admissible. Whether the UPMC Study was peer reviewed would be relevant only as to the relative weight that should be given to the UPMC Study vs. Dr. Jordan’s opinions, not to whether Dr. Jordan’s testimony is admissible under *Daubert*.<sup>3</sup> “[Plaintiffs] do not have to demonstrate to the judge by a preponderance of the evidence

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<sup>1</sup> Likewise, Defendants’ claims that Dr. Jordan’s methodology is subject to a high rate of error, that he did not use his own standards, and that his methodology is not generally accepted, are based upon the methodology they attribute to Dr. Jordan, that his opinions are solely based upon his review of medical literature on concussions, not his actual methodology.

<sup>2</sup> The UPMC Study is not, as Defendants argue, “unassailable,” nor did the Court ever find it to be so. Rather, the Court found that Defendants’ claims relating to certain of the helmets that stated that a study had found them to have a 31% reduction in the incidents of concussions were not actionable because those claims accurately characterized the results of the UPMC Study. (Docket Entry 65, at 27-30.) However, as the Court noted, whether the 31% concussion reduction claim could be transferred to helmets that were not part of the UPMC Study and to Riddell’s concussion-reduction technology generally is an entirely different issue. (*Id.* at 30-35 and n. 16.)

<sup>3</sup> Dr. Jordan did not, as Defendants contend, subjectively dismiss the UPMC Study. Rather, he identified flaws in the Study that, in his opinion, made the results of the Study suspect. Among those flaws was that Riddell helmets were worn by older football players than the other helmets which was a “significant methodological flaw” because concussion rates vary by age. (Cecchi Decl. Ex. B, Jordan Dep., 137:17 to 138:22.) Another flaw is that new Riddell helmets were compared with older helmets of other manufacturers and as helmets age, they gradually lose their ability to ameliorate impacts. (Cecchi Decl. Ex. B, Jordan Dep., 273:2 to 12; 281:11 to 282:15; 290:14 to 291:10.) There is also the issue of the inherent bias of a study sponsored by the football helmet industry. (Cecchi Decl. Ex. B, Jordan Dep., 68:3 to 9; 273:2 to 11.)

that the assessments of their experts are correct, they only have to demonstrate by a preponderance of the evidence that their opinions are reliable.” *Paoli*, 35 F.3d at 744.

Defendants’ attack on the reliability of Dr. Jordan’s opinions as being inconsistent with non-judicial uses is contrary to the record. Their major complaint is, in reality, that his opinions are inconsistent with Defendants’ claims. Dr. Jordan did, in fact account for NOCSAE standards for concussion protection. He testified that NOCSAE uses a drop test, but that a drop test does not measure whether a helmet will protect against concussions. (Cecchi Decl. Ex. B, Jordan Dep., 256:15 to 257:23.) As Dr. Jordan testified earlier in his deposition, such testing measures only account for linear acceleration, not rotational acceleration and it is rotational acceleration that is the most important factor in causing concussions. (Cecchi Decl. Ex. B, Jordan Dep., 93:7 to 94:19.)<sup>4</sup>

Defendants’ complaint that Dr. Jordan “struggled to agree with the basic principles of studies that said helmets and concussions” [sic] is, in reality, Dr. Jordan disagreeing with Defendants’ counsel’s interpretation of a paragraph in the UPMC Study. (Cecchi Decl. Ex. B, Jordan Dep., 318:9 to 326:16; 327:11 to 335:8.) If an expert could be excluded simply because he or she does not agree with an adversary’s counsel’s interpretation of a document, no expert would ever be qualified to testify.

**d) Dr. Jordan’s Opinions Fit The Issues In the Case**

Defendants also argue that Dr. Jordan’s opinions should be excluded because they lack “fit.” That contention also fails. Certainly, his opinions that no helmet is better than any other at

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<sup>4</sup> *Wolfson-Verrichia Group, Inc. v. Metro Commercial Real Estate, Inc.*, 2013 WL 1286184 (E.D.Pa. Mar. 28, 2013), cited by Defendants at 20-21, is inapplicable to the facts presented here. In *Wolfson-Vericchia*, the court excluded a real estate expert who offered an opinion that the plaintiff’s property was superior to other available sites because the expert did not provide any explanation as to how he reached that conclusion (other than he thought about it), or explain how he applied his experience to the facts. *Id.* at \*11-12. Here, by contrast, as is explained above, Dr. Jordan did explain his thought processes and how he applied his experience to the facts, even if Defendants do not like his results.

protecting against concussions is “relevant for the purposes of the case and must assist the trier of fact.” *Calhoun*, 350 F.3d at 321. That is an exact “fit” between Dr. Jordan’s opinions, that no helmet provides better concussion protection, and the issues in the case.

Defendants also seek to exclude Dr. Jordan’s opinions that no helmet provides protection from concussions. Those opinions also “fit” the issues in the case. That opinion would still directly contradict Defendants’ claim that Riddell helmets possess “concussion reduction technology.” Obviously, if no helmet can provide protection against concussions, then all helmets are equally (in)effective in protecting against concussions. Thus, Dr. Jordan’s opinion that no helmet can reduce concussions contradicts Defendants’ claim that Riddell helmets possess “concussion reduction technology.”<sup>5</sup> As such, his credible opinions should be allowed to assist the trier of fact in determining whether CRT is misleading.

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<sup>5</sup> This theory was not previously rejected by the Court, as Defendants contend. (Def. Brief at 23.) In fact, the Court directed Plaintiffs to be more specific as to: a) which helmets Defendants’ helmets were being compared to with respect to their concussion-reduction effectiveness claims or b) if Plaintiffs’ claims were not based upon comparative effectiveness, they should clearly allege that their claims were that no football helmet could reduce concussions. (Docket Entry 41 at 30-31.) Plaintiffs chose to focus their claims that Riddell helmets were not comparatively better than other helmets. However, evidence that *no* helmet can reduce concussions would be relevant to the more specific proposition that Riddell’s are not comparatively better than other helmets.

**CONCLUSION**

For the foregoing reasons, Defendants' motion to exclude the expert report and testimony of Dr. Barry D. Jordan should be denied.

Dated: March 10, 2017.

/s/ James E. Cecchi

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